

In the Claims:

Please amend the claims as follows:

C1 1           1. (currently amended) A device for performing sound field hearing testing, said  
2 device comprising:

3           a) an audio transducer for producing acoustic test stimuli to a test subject within  
4 the direct sound field range of said audio transducer, and

5           b) a contactless position sensor system for remotely measuring the ~~position~~  
6 distance of said device with respect to the head or part thereof ~~of interest~~ of said test subject,  
7 and

8           c) means for ~~enhancing reception and directionality of position sensing for~~  
9 ~~properly positioning said device relative to said test subject~~ adjusting characteristics of said  
10 acoustic test stimuli in response to distance measurements performed by said position sensor  
11 system ~~whereby hearing evaluation of said test subject may be performed by said device~~  
12 ~~based on said acoustic test stimuli.~~

2. (canceled)

1           3. (original) The device of claim 1, wherein said device is constructed and adapted to  
2 be hand held by said test subject.

1           4. (original) The device of claim 1, wherein said device is configured as a wrist  
2 watch.

1           5. (original) The device of claim 1, wherein said device is configured for operation  
2 by a test operator assisting said test subject.

1           6. (original) The device of claim 1, including means for performing said hearing  
2 evaluation in an unaided condition in which said test subject is not wearing a hearing aid.

C<sup>1</sup>  
1           7. (original) The device of claim 1, including means for performing said hearing  
2 evaluation in an aided condition in which said test subject is wearing a hearing aid.

1           8. (original) The device of claim 7, including means for performing said hearing  
2 evaluation in said aided condition to verify functionality of said hearing aid worn by said test  
3 subject.

1           9. (original) The device of claim 7, including means for performing said hearing  
2 evaluation in said aided condition to adjust at least one parameter of said hearing aid.

1           10. (original) The device of claim 1, further comprising means for delivering at least  
2 one of said acoustic test stimuli within the soft level listening range of normal hearing  
3 individuals.

1           11. (original) The device of claim 10, wherein said soft level listening range is  
2 between 20 and 40 dB HL.

1           12. (original) The device of claim 1, further comprising means for delivering at least  
2 one of said acoustic test stimuli within the comfortable level listening range of normal hearing  
3 individuals.

1           13. (original) The device of claim 12, wherein said comfortable level listening range  
2 is between 45 and 65 dB HL.

1           14. (original) The device of claim 1, wherein said contactless position sensor system  
2 comprises at least one of an optical transducer, acoustic transducer and ultrasonic transducer.

15. (canceled)

1           **16.** (currently amended) The device of claim **1**, wherein said contactless position  
2 sensor system comprises means for ~~automatically~~ determining if the device is within an  
3 operable range and orientation with respect to the head or part thereof ~~of interest~~ of said test  
4 subject.

C! 1           **17.** (original) The device of claim **1**, wherein said contactless position sensor system  
2 comprises a transmitting transducer and a receiving transducer.

1           **18.** (currently amended) The device of claim **17**, wherein said contactless position  
2 sensor system comprises means for computing the distance between the device and the head  
3 or said part thereof ~~of interest~~ of said test subject based on the latency period between a  
4 transmitted signal emitted by said transmitting transducer and reflected signal received by  
5 said receiving transducer.

1           **19.** (original) The device of claim **17**, wherein said transmitting transducer and  
2 receiving transducer are combined in a unitary bidirectional transducer.

1           **20.** (original) The device of claim **1**, further comprising means to select from at least  
2 two types of acoustic test stimuli including speech, noise and tone types.

1           **21.** (original) The device of claim **1**, further comprising means to select acoustic test  
2 stimuli in at least two frequency ranges.

1           **22.** (original) The device of claim **1**, further comprising at least one switch for  
2 selection of at least one acoustic test stimulus.

1           **23.** (original) The device of claim **1**, further comprising interface means for  
2 connecting a remote instrument to said device for remotely operating said device.

1           **24.** (original) The device of claim **23**, wherein said remote instrument comprises a  
2 computer.

1           **25.** (original) The device of claim **23**, wherein said interface means comprise an  
2 electrical cable.

C<sup>1</sup>  
1           **26.** (original) The device of claim **23**, wherein said interface means comprise the  
2 Internet.

1           **27.** (currently amended) The device of claim **23**, wherein said interface means  
2 comprise a wireless link ~~including any of infrared, radio frequency, electromagnetic, sound,~~  
3 ~~or ultrasound.~~

1           **28.** (currently amended) The device of claim **23**, further comprising response  
2 registration means for registering test responses by said test subject ~~and relaying said test~~  
3 ~~responses to said remote instrument.~~

**29.** (canceled)

1           **30.** (currently amended) The device of claim **1**, further comprising visual status  
2 display means, including liquid crystal display (LCD) and light emitting diode (LED).

1           **31.** (original) The device of claim **1**, further comprising a controller.

1           **32.** (original) The device of claim **1**, further comprising memory for storage of data  
2 representative of acoustic test stimuli.

1           **33.** (original) The device of claim **1**, further comprising a microphone.

1           **34.** (currently amended) The device of claim **33**, wherein said microphone provides  
2 means for measuring ambient background noise, ~~for self testing, or for self calibration of said~~  
3 ~~device.~~

C 1           **35.** (original) The device of claim **7**, further comprising wireless remote control  
2 means for controlling or adjusting at least one parameter of said hearing aid worn by said test  
3 subject.

1           **36.** (original) The device of claim **35**, wherein said wireless remote control means  
2 comprise a magnet.

1           **37.** (currently amended) A hand held device for performing sound field hearing  
2 evaluation in a contactless manner with respect to a test ear of a test subject, said device  
3 comprising:

4           a) an audio transducer for delivering acoustic test stimuli to said test subject  
5 holding said device within the direct sound field range of said audio transducer,

6           b) means for selecting delivery of said acoustic test stimuli through said audio  
7 transducer at two or more intensity levels for performing one or more supra-threshold hearing  
8 measurements,

9           c) means for selecting delivery of said acoustic test stimuli through said audio  
10 transducer in at least two frequency ranges for performing hearing evaluation in at least two  
11 frequency ranges, and

12           d) a wireless position sensor for ~~automatically~~ remotely measuring the ~~position~~  
13 distance of said device relative to the head or portion of the head ~~of interest~~ of the test subject.

1           **38.** (original) The hand held device of claim **37**, wherein said device is configured  
2 for operation by said test subject.

1           **39.** (original) The hand held device of claim **37**, wherein said device is configured  
2 for operation by a test operator assisting said test subject

1           **40.** (original) The hand held device of claim **37**, including means for performing said  
2 hearing evaluation in an unaided condition in which said test subject is not wearing a hearing  
3 aid.

C1  
1           **41** (original) .The hand held device of claim **37**, including means for performing said  
2 hearing evaluation in an aided condition in which said test subject is wearing a hearing aid.

**42.** (canceled)

**43.** (canceled)

**44.** (canceled)

**45.** (canceled)

**46.** (canceled)

**47.** (canceled)

1           **48.** (currently amended) The hand held device of claim **37**, further comprising a  
2 contactless position sensor system for measuring the position of said device with respect to  
3 the head or part thereof ~~of interest~~ of said test subject.

1           **49.** (currently amended) The hand held device of claim **48**, further including means  
2 for ~~automatically~~ adjusting the characteristics of said acoustic test stimuli, ~~including onset,~~

3 ~~amplitude and frequency~~, in response to position measurements performed by said contactless  
4 position sensor system.

1       **50.** (currently amended) The hand held device of claim **48**, wherein said contactless  
2 position sensor system comprises ~~at least one~~ an ultrasonic transducer.

CI       **51.** (canceled)

**52.** (canceled)

1       **53.** (original) The hand held device of claim **37**, further comprising means to select  
2 from at least two types of said acoustic test stimuli including speech, noise and tone types.

**54.** (canceled)

**55.** (canceled)

1       **56.** (original) The hand held device of claim **37**, further comprising interface means  
2 for connecting a remote instrument for remotely operating said hand held device.

1       **57.** (original) The hand held device of claim **56**, wherein said remote instrument  
2 comprises a computer.

1       **58.** (original) The hand held device of claim **56**, wherein said interface means  
2 comprise the Internet.

**59.** (canceled)

**60.** (canceled)

1           **61.** (currently amended) The hand held device of claim **56**, further comprising  
2 response registration means for registering test responses by said test subject ~~and relaying said~~  
3 ~~test responses to said remote instrument.~~

**62.** (canceled)

1           **63.** (currently amended) The hand held device of claim **37**, further comprising visual  
2 ~~status~~ display means, including an liquid crystal display (LCD) and light emitting diode  
3 (LED).

**64.** (canceled)

**65.** (canceled)

1           **66.** (original) The hand held device of claim **37**, further comprising a microphone.

1           **67.** (currently amended) The hand held device of claim **66**, wherein said microphone  
2 provides means for measuring ambient background noise, ~~for self testing, or for self~~  
3 ~~calibration of said device.~~

**68.** (canceled)

**69.** (canceled)

1           **70.** (currently amended) A system for performing hearing evaluation of a test subject  
2 comprising:



3 a) a hand held device containing an audio transducer within, said hand held  
4 device being positioned within the direct sound field range of said audio transducer and  
5 positioned in a contactless manner with respect to a test ear of said test subject,

6 b) an auxiliary instrument operably connected to said hand held device for  
7 remotely controlling the operation of said hand held device,

8 c) means for selecting the delivery of acoustic test stimuli through said audio  
9 transducer at two or more intensity levels and at two or more frequency ranges, and

10 d) a contactless position sensor for ~~automatically~~ remotely measuring the ~~position~~  
11 distance of said device relative to the head or portion of the head of ~~interest~~ of the test subject,  
12 and

13 e) means for adjusting said acoustic stimuli based on distance measured by said  
14 position sensor.

C 1 71. (original) The system of claim 70, wherein said hand held device is  
2 independently operable as a hearing evaluator when detached from said auxiliary instrument.

72. (canceled)

73. (canceled)

1 74. (original) The system of claim 70, including means for performing said hearing  
2 evaluation in an unaided condition in which said test subject is not wearing a hearing aid.

1 75. (original) The system of claim 70, including means for performing said hearing  
2 evaluation in an aided condition in which said test subject is wearing a hearing aid.

76. (canceled)

77. (canceled)

78. (canceled)

79. (canceled)

80. (canceled)

1           **81.** (original)   The system of claim **70**, wherein said auxiliary instrument is a  
2 computer.

C1 1           **82.** (original)   The system of claim **70**, including means for remotely connecting said  
2 auxiliary instrument to said hand held device through the Internet.

83. (canceled)

1           **84.** (currently amended)   A method of evaluating a test subject's hearing with a  
2 device containing a contactless position sensor system and an audio transducer, said method  
3 comprising the steps of:

4           a) ~~automatically~~ measuring the ~~position~~ distance of said subject's head or part  
5 thereof ~~of interest and thereby properly positioning thereof~~ relative to said device with said  
6 position sensor system when said device is oriented ~~to face~~ toward said subject's head or part  
7 thereof ~~of interest~~;

8           b) ~~automatically~~ determining any of the characteristics of acoustic test stimuli  
9 ~~from said audio transducer, including onset, amplitude and frequency thereof~~, according to the  
10 measurement performed by said position sensor system; and

11           c) delivering said acoustic test stimuli to said test subject while said device is  
12 oriented toward said subject's head or part thereof of interest.

1           **85.** (currently amended) The method of claim **84**, including the step of orienting said  
2 audio transducer at approximately ~~0°-degree~~ 0° incidence and within a distance range of 30-  
3 60cm with respect to the forehead of said test subject, while performing said step of  
4 delivering acoustic test stimuli.

1           **86.** (currently amended) The method of claim **84**, including the step of orienting said  
2 audio transducer at approximately ~~0°-45°-degree~~ 0°-45° incidence range and within a  
3 distance range of 2-10 cm with respect to a test ear of said test subject while performing said  
4 step of delivering acoustic test stimuli, for monaural hearing evaluations.

1           **87.** (original) The method of claim **84**, including delivering said acoustic test stimuli  
2 in an unaided condition in which said test subject is not wearing a hearing aid.

1           **88.** (original) The method of claim **84**, including delivering said acoustic test stimuli  
2 in an aided condition in which said test subject is wearing a hearing aid.

1           **89.** (original) The method of claim **88**, including delivering said acoustic test stimuli  
2 in said aided condition to verify the functionality of said hearing aid.

1           **90.** (original) The method of claim **88**, including delivering said acoustic test stimuli  
2 in said aided condition to adjust at least one parameter of said hearing aid.

**91.** (canceled)

**92.** (canceled)

**93.** (canceled)

1           **94** (original) The method of claim **84**, including connecting a remote instrument to  
2 said device via an interface to remotely control said device during said hearing evaluation.

1           **95.** (original) The method of claim **94**, including connecting said remote instrument  
2 to said device via the Internet.

1           **96.** (original) The method of claim **94**, wherein said remote instrument is a computer.

C<sup>1</sup>           **97.** (original) The method of claim **94**, wherein said remote instrument is an  
audiometer.

1           **98.** (currently amended) A method of hearing evaluation for an individual holding a  
2 hand held device containing an audio transducer for delivering acoustic test stimuli in a  
3 contactless manner and within the direct sound field range of said audio transducer with  
4 respect to a test ear of said individual, said method comprising the steps of:

5           a) performing ~~automatic~~ position sensing to ~~properly position~~ remotely measure  
6 distance of said individual relative to said device ~~so as to perform hearing evaluation of said~~  
7 ~~individual based on said acoustic test stimuli;~~

8           b) calibrating said acoustic test stimuli based on distance measured by said  
9 position sensing;

10           [[b]] c) delivering at least two levels of said acoustic test stimuli to said test ear  
11 of the individual, and

12           [[c]] d) delivering said acoustic test stimuli in at least two frequency ranges.

1           **99.** (currently amended) The method of claim **98**, including orienting said audio  
2 transducer at approximately ~~0° degree~~ 0° incidence and within a distance range of 30-60 cm  
3 with respect to the forehead of said individual.

1           **100.** (currently amended) The method of claim **98**, including orienting said audio  
2 transducer at approximately  $0^{\circ}$ — ~~$45^{\circ}$~~  degree  $0^{\circ}$ - $45^{\circ}$  incidence range and within a distance  
3 range of 2-10 cm with respect to said test ear, for monaural hearing evaluations.

1           **101.** (original) The method of claim **98**, including performing said hearing  
2 evaluation in an unaided condition in which said individual is not wearing a hearing aid.

1           **102.** (original) The method of claim **98**, including performing said hearing  
2 evaluation in an aided condition in which said individual is wearing a hearing aid.

C<sup>1</sup>  
**103.** (canceled)

**104.** (canceled)

**105.** (canceled)

1           **106.** (original) The method of claim **98**, including connecting a remote instrument to  
2 said device via an interface to remotely control said device during said hearing evaluation.

1           **107.** (original) The method of claim **106**, including connecting said remote  
2 instrument to said device via the Internet.

1           **108.** (original) The method of claim **106**, wherein said remote instrument is a  
2 computer.

**109.** (canceled)